

In The Claims

Amend the claims as indicated below. The current status of each claim is shown in the complete list of claims below:

1. (original) A method of storing and dispensing a first gas for use in a process and receiving and storing a second gas, said method comprising the steps of
storing the first gas in the first compartment of a container having a first compartment and a second compartment separated by a movable gas impermeable partition,
dispensing the first gas from the first compartment via a gas outlet of the container and providing the first gas to a processing apparatus for carrying out a process involving the first gas;
recovering gas from said processing apparatus; and
feeding at least a portion of said recovered gas to the second compartment via a gas inlet of the container to provide at least a portion of the second gas, whereby a volume of the second gas displaces a volume of the first gas by movement of the partition to enlarge the second compartment relative to the first compartment.
2. (previously presented) The method of Claim 1, wherein the container has a rigid housing with a flexible internal membrane dividing the housing into the first and second compartments.
3. (previously presented) The method of Claim 1, wherein at least a portion of the second gas is a component of the first gas.
4. (previously presented) The method of Claim 1, which further comprises the steps of analysing the recovered gas and feeding to the second compartment at least a portion of the recovered gas that satisfies at least one predetermined criterion determined by said analysis.
5. (previously presented) The method of Claim 1, wherein the pressure of gas in the second compartment is maintained above 0.1 MPa (1 atmosphere).
6. (previously presented) The method of Claim 1, wherein the first gas comprises a gas selected from the group consisting of noble gases, noble gas isotopes, isotopes of oxygen and

isotopes of carbon dioxide.

7. (previously presented) The method of Claim 1, wherein the first gas comprises xenon.
8. (previously presented) The method of Claim 7, wherein the first gas comprises xenon in an amount of at least about 50% by volume.
9. (previously presented) The method of Claim 7, wherein the first gas further comprises oxygen.
10. (previously presented) The method of Claim 9, wherein the xenon and oxygen are the sole components of the first gas.
11. (previously presented) The method of Claim 7, wherein the second gas comprises xenon.
12. (previously presented) The method of Claim 1, wherein the processing apparatus is selected from the group consisting of cardiopulmonary bypass oxygenators and artificial ventilators.
13. (canceled) A container for storing and dispensing a gas for use in a process and receiving and storing a gas recovered from the process, wherein the container comprises a first compartment having a gas outlet and a second compartment having a gas inlet, said first and second compartments separated by a gas impermeable partition, wherein said partition is moveable such as to enable the relative volumes of the first and second compartment to be varied.
14. (canceled) The container of Claim 13, wherein the container has a rigid housing and the gas impermeable partition is a flexible membrane dividing the housing into the first and second compartments..
15. (previously presented) An apparatus for storing and dispensing a gas for use in a process and receiving and storing a gas recovered from the process, said apparatus comprising

a container, which container comprises

- a first compartment for containing a first gas and having a gas outlet;
- a second compartment for containing a second gas and having a gas inlet; and
- a gas impermeable partition which separates the first compartment and the second compartment and is moveable such as to enable the relative volumes of the first and second compartments to be varied;

a processing apparatus for carrying out a process involving a gas;

a dispensing conduit for feeding gas from the gas outlet to the processing apparatus;

a recovery conduit for feeding gas from the processing apparatus to the gas inlet; and

a pumping means for pumping the gas from the processing apparatus into the second compartment.

16. (previously presented) The apparatus of Claim 15, wherein the container has a rigid housing with a flexible internal membrane dividing the housing into the first and second compartments..

17. (previously presented) The apparatus of Claim 15, wherein the processing apparatus is an artificial ventilator.

18. (previously presented) The apparatus of Claim 15, wherein the processing apparatus is a cardiopulmonary bypass oxygenator.